

REMARKS/ARGUMENTS

The amendments made in this response to the Office Action are intended to elect/restrict the patent application to the invention identified on page 2, paragraph 2, of the Office Action as "I. Claim 1, drawn to a system for annotating sets and subsets of genes, classified in class 702, subclass 19".

In view of the restriction requirement made in the Office Action, during the pendency of the present application, applicant retains the right to present claims 2-3 and 4-6 in two divisional applications, as indicated on page 2, paragraph 2 of the Office Action (II. Claims 2 and 3, drawn to a system for evaluating the quality of gene clustering, classified in class 702, subclass 9; and III. Claims 4-6, drawn to a computer method of clustering gene expression data, classified in class 702, subclass 19).

The present amendments to the specification resulted in the deletion of text related to claims 2 through 6 of the original specification. The examples associated with Tables 3 and 4 of the original application are related to the elected/restricted claim 1 of the amended application, but because they are also related to the non-elected claim 4, those examples were deleted from the amended application. Minor changes were also made to the remaining text to make it read more fluidly.

The amended application cites the same prior art as the original application. In the amended application, one of the citations (MANNING et al) was moved from its location on page 33, line 3 of the original application, to a different location as indicated in Amendment 3 to the Specification.

The amended application deletes Figs. 2 through 8. They are deleted because only Fig. 1 pertains to the elected/restricted Claim 1. The amended application includes changes to Fig. 1., consisting of:

1. Replacing the figure numbering "1/8" at the top of the drawing with the amended figure numbering "1/1", so as to reflect the amended total number of sheets of drawings

2. Deleting the modules of the Computer Program Modules **(114)** that do not pertain to the elected/restricted Claim 1, namely, **(130)** Text Classification Module, **(132)** Cluster Randomization Module, and **(134)** Data Summarization Module.
3. Deleting the modules of the Data Repository **(138)** that do not pertain to the elected/restricted Claim 1, namely, **(160)** Text Classification Data and **(162)** Summarized Data.

Applicant retains the empty locations in Fig. 1, corresponding to the above-mentioned deleted modules, in order to indicate the existence of software modules that are not needed for disclosure of the invention related to Claim 1, but that nevertheless exist and that may subsequently be disclosed in divisional applications.

Applicant requests pursuant to MPEP 707.07(j) that the Examiner draft one or more suitable claims for the applicant, if the Examiner finds patentable subject matter disclosed in this application, but feels that Applicant's present claims are not entirely suitable. Applicant requests in particular that the Examiner assist with the drafting of one or more claims describing particular embodiments of the general Claim 1, along the following lines:

A system, method, or computer program product of Claim 1, wherein:

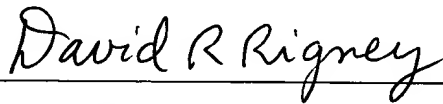
- (a) the means for identifying a set of genes is to acquire the list of accession numbers corresponding to spots on a nucleic acid (or protein) microarray;
- (b) the means for partitioning the set of genes in (a) is to acquire a list of clusters and a list of accession numbers with which each of those clusters is associated, said lists being acquired by the system from a source external to the present system;
- (c) the means for associating a set of documents with each gene in the set of genes in (a), wherein database linkages are traced from accession number to Unigene number to LocusLink number to Omim number to Literature UIDs contained within a Web page for the corresponding Omim number;
- (d) the means for receiving text for documents in (c), wherein the text is downloaded over the Internet from a PubMed database of the U.S. National Institutes of Health;
- (e) the means for assigning numerical weights to words or phrases contained in the text in (d), wherein the text in (d) is partitioned according to its association with clusters as provided in (b) and (c), followed by the application to the words and phrases in the partitioned text documents, of

the "print-word-weights" option of the computer program Rainbow, operating with its default parameters such as use of the Naive Bayes method;

(f) the means for sorting, storing, and displaying of the words and phrases of (e), wherein said words and phrases are written to a computer file that may be read by the User, said file containing adjacent columns of words & phrases and their associated numerical weights.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case because the response was filed within the period of time provided by 37 CFR 1.136(a).

Respectfully submitted,



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